Practitioner's Docket No. W1.2041 PCT-US ***PATENT***

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

re application of

Claus August BOLZA-SCHÜNEMANN

Application No.: 10/537,783 Group No.: 2854

Filed: June 6, 2005 Examiner: Joshua D. Zimmerman

For: METHODS FOR CONTROLLING BOTH A FIRST ROLLER, WHICH TAKES UP A DAMPENING AGENT FROM A DAMPENING AGENT SOURCE, AS WELL AS A SECOND ROLLER, AND DAMPENING SYSTEMS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

ATTENTION: Board of Patent Appeals and Interferences

APPELLANT'S BRIEF ON APPEAL UNDER 37 C.F.R. § 41.37(a)(1)

This Appellant's brief on appeal is in furtherance of the Notice of Appeal, filed in this case on February 26, 2008, in response to the Final Office Action mailed on January 28, 2008.

The fee required under 37 CFR § 41.20(b)(2), in the amount of $510.00, is being paid by the accompanying check No. 20149. It is requested that any additional fees which may be required in connection with this submission be charged to the deposit account No. 10-1213 of the undersigned.

This brief contains the following items, under appropriate headings, and in the order indicated in 37 CFR § 41.37(c)(1)(i) to (c)(1)(x).

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The final page of this brief bears the practitioner's signature.

i REAL PARTY IN INTEREST (37 C.F.R. § 41.37(c)(1)(i))

The real party in interest in this appeal is the assignee KOENIG & BAUER AKTIENGESELLSCHAFT, Patentabteilung, Friedrich-Koenig-Str. 4, 97080 Wurzburg, GERMANY.

ii RELATED APPEALS AND INTERFERENCES
(37 C.F.R. § 41.37(c)(1)(ii))

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal, there are none.

iii STATUS OF CLAIMS (37 C.F.R. § 41.37(1)(iii))

A. TOTAL NUMBER OF CLAIMS IN APPLICATION

Claims in the application are: Claims 102, 104, 106, 107, 109-112 and 116-127.

B. STATUS OF ALL THE CLAIMS IN APPLICATION

1. Claims previously canceled: 1-101, 103, 105, 108, 113-115 and 128-191.
2. Claims pending: 102, 104, 106, 107, 109-112 and 116-127.
3. Claims allowed: None.
4. Claims rejected: 102, 104, 106, 107, 109-112 and 116-127.

C. CLAIMS ON APPEAL

The claims on appeal are: 102, 104, 106, 107, 109-112 116-127.

iv STATUS OF AMENDMENTS (37 C.F.R. § 41.37(c)(1)(iv))

Claims 102, 106, 107, 109-112 and 116-127 were rejected in the Final Office Action mailed January 28, 2008, in response to the filing of a Third Amendment on October 26, 2007. There are no further Amendments filed but not entered.

v SUMMARY OF CLAIMED SUBJECT MATTER (37 CFR § 41.37(c)(1)(v))

Claim 102 is the sole independent claim currently pending in the subject U.S. patent application. It is directed to a method for controlling rollers that are part of a dampening agent application roller train. The dampening agent application roller train is employed in a printing unit to apply a dampening agent, typically a water-based fluid, to a printing or forme cylinder in the printing unit. The following is a concise explanation of the subject invention defined in independent claim 102, referring to the Substitute Specification, as filed with the application, by page number, paragraph number and line number within a particular paragraph, and to the drawings as filed, by figure number and reference character. There is no means plus function language in claim 102.

Claim 1 is directed to a method for controlling rollers in a dampening agent application roller train of a printing unit. A dampening unit is depicted generally at 01 in both of Figs. 1 and 2. Page 7, ¶ 017, line 3 describes the dampening unit 01 as including a first roller 04 and a second roller 06. ¶ 017, line 22, at page 8 of the Substitute Specification identifies element 09 as a forme cylinder of a printing press.

A source of dampening agent 02 is provided by a dampening agent reservoir at 03, as seen in Figs. 1 and 2. This is described at page 7, ¶ 017, lines 3-6. The first roller 04 has a first roller surface, as seen in Figs. 1 and 2, which is adapted to take up the dampening agent 02 from the source 03 of the dampening agent.

The second roller 06 is shown in Figs. 1 and 2 and has a second roller surface contacting the surface of the first roller and receiving the dampening fluid 02 directly from the surface of the first roller surface. Note the discussion, again at page 7, ¶ 017, lines 7-9.

A forme cylinder 09 is provided, as described at page 8, still at ¶ 017, line 22. The forme cylinder 09 has a forme cylinder surface speed of rotation v09, as depicted by the arrow in both of Figs. 1 and 2. This surface speed of rotation of the forme cylinder is identified at page 11, ¶ 020, lines 9 and 10.

The forme cylinder 09 is provided with a forme cylinder drive motor 18. This is depicted in Figs. 1 and 2 and is discussed at page 17, ¶ 026, lines 9-15. The forme cylinder drive motor is operated to rotate the forme cylinder at the forme cylinder surface speed of rotation v06.

The first and second rollers 04, 06, respectively are included in the roller train usable to convey the dampening agent 02 to the forme cylinder 09. This is discussed at page 8, ¶ 017, lines 20-23.

The first roller 04 is provided with a first roller drive motor 07, as depicted in Figs. 1 and 2. Please refer to page 12, ¶ 022, lines 5-8. The first roller drive motor 07 is used to rotate the first roller 04 at a first roller surface speed v04. Again, please refer to page 12, ¶ 022, lines 8 and 9. The first roller surface speed is controlled at less than 2 m/s. This is set forth at page 14, ¶ 023 at lines 13-18.

The second roller 06 is driven by a second roller drive motor 08 at a second roller surface speed v06 which second roller drive is independent of the first roller drive. Please again refer to the discussion at page 12, ¶ 022, lines 4-8. Each of the first roller drive motor 07, the second roller drive motor 08 and the forme cylinder drive 18 is controllable. This is set forth at page 17, ¶ 026, lines 12-15.

The second roller 06 is rotated at its second roller surface speed v06 which is different from the first roller surface speed v04. That second roller surface speed v06 is greater than the first roller surface speed v04. The relationship between these two roller surface speeds is disclosed at page 13, ¶ 023, starting at line 4 and continuing through line 10 at the top of page 14.

The surface speed v04 of the first roller 04 and the surface speed v06 of the second roller are both less than the forme cylinder surface speed of rotation v09. This is set forth at pages 18 and 19, ¶ 028, lines 6-8.

Both of the first roller surface speed v04 and the second roller surface speed v06 are set as a function of the forme cylinder surface speed v09. In this regard, note the discussion at page 15, ¶ 025 in its entirety and also the discussion at page 16. Also note the discussion at page 18,

¶ 028 which recites, at lines 3-6 that the surface speeds of the first and second rollers can be set independently of each other and without "...a rigid dependence..." (emphasis added) on the surface speed v09 of the forme cylinder 09. While there is a dependence of the three speeds on each other, it is clear that there is also a functional relationship between these speeds, as discussed at page 15, ¶ 025, lines 1-3.

A slippage between the first roller surface and the second roller surface is selected by controlling each of the first drive motor 07 and the second drive motor 08, independently. This selected slippage results from the difference in surface speeds v04 and v06 of the first and second rollers 04 and 06. The selection and control of such a slippage between the surfaces of the first roller 04 and the second roller 06 is discussed at ¶ 024, which bridges pages 14 and 15 of the Substitute Specification. Particularly to be noted is the portion of ¶ 024 at the top of page 15 of the specification. This portion of the specification also provides support for the language in independent claim 102 reciting that the slippage between the first roller surface and the second roller surface is accomplished using the first and second drive motors 07 and 08, respectively.

The slippage between the surface of the first roller 04 and the surface of the second roller 06 is set at a function of the forme cylinder surface speed. This is set forth at page 6, ¶ 014, lines 3-8.

The result of this method recited in claim 102 is the controlling of an amount of the dampening agent 02 which is supplied to the forme cylinder 09, using the roller train 01. This is accomplished by controlling the selected slippage between the surface of the first roller 04 and the surface of the second roller 06 as the function of the forme cylinder surface speed. As noted in the prior paragraph, the discussion at the top of page 6 of the Substitute Specification, at lines 3-8 of ¶ 094 recites that the slippage between the first and second rollers is adjustable, as needed to accomplish a correct metering of the dampening fluid that is applied to the rollers. This adjustment or control of the selected slippage is a function of a change in the surface speed of the forme cylinder. This is reinforced by the discussion at pages 12 and 13, ¶ 022,

lines 1-6 and lines 13-20. Lines 1-6 set forth that the first roller 04 and the second roller 06 have separate drive mechanisms, which are independently controlled. The result is a controllable slippage between the two, which controllable slippage makes possible "...an adaption of the requirements of the amounts of dampening agent 02 made available at the forme cylinder 02 as a function of the production speed of the printing press..." The forme cylinder surface speed is the production speed of the printing press.

vi GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL (37 C.F.R. § 41.37(c)(1)(vi)

Claims 102, 106, 110, 111, 116, 118, 121 and 122 were rejected in the Final Office Action of January 28, 2008 under 35 USC 013(a) as being unpatentable over Japanese document No. JP 01-232045 to Tsuneo in view of U.S. patent No. 3,688,694 to Preuss. Claim 109 was rejected under 35 USC 103(a) as being unpatentable over Tsuneo and Preuss and further in view of U.S. patent No. 5,101,724 to D'Heureuse. Claims 104, 112, 117, 119 and 120 were rejected under 35 USC 103(a) as being unpatentable over Tsueno and Preuss and further in view of the applicant's admitted prior art (AAPA). Claim 120 was rejected under 35 USC 103(a) as being unpatentable over Tsuneo and Preuss and further in view of U.S. patent No. 6,314,878 to Wolff. Claims 107 and 124-127 were rejected under 35 USC 103(a) as being unpatentable over Tsuneo and Preuss and further in view of U.S. patent No. 6,138,563 to Sone.

For purposes of the subject appeal, claim 102, the sole independent claim now pending in the application, will be the only claim whose rejection is appealed from. Since the Examiner's rejection of claim 102 in the Final Office Action of January 28, 2008 covers six pages of that Final Office Action, a "concise" statement of that ground of rejection is believed not to be appropriate, other than the above statement that claim 102 was, as indicated above, rejected under 35 USC 103(a) as being unpatentable over Tsuneo in view of Preuss.

vii ARGUMENTS (37 C.F.R. § 41.37(c)(1)(vii))

1. Claim 102 is unpatentable under 35 USC 103(a) over Tsuneo in view of Preuss.

It is respectfully asserted that the Examiner erred in his determination that the combination of the Tsuneo and Preuss references render the method recited in currently pending claim 102 obvious to one of skill in the art. Specifically, it is asserted that the Examiner erred in his position that the combination of those two references renders obvious the setting of a selected slippage between the first roller surface and the second roller surface as a function of the forme cylinder surface speed. The Examiner also erred in his position that the combination of references renders obvious the controlling of an amount of the dampening fluid supplied to the forme cylinder, using the roller train, by controlling the slippage between the first roller surface and the second roller surface as a function of the forme cylinder surface speed.

a) Discussion of Disclosure of Primary Reference, JP 01-232045

The primary reference relied on in the rejection of claim 102 is Japanese document No. JP 1-232045 to Tsuneo, which is directed to a dampening apparatus of a printing press. It is to be noted that there does not appear to be an English language equivalent of this document. No translation thereof was relied on during the prosecution of the subject application. The characterization of this document is thus based on its English language abstract.

As may be seen in the sole drawing figure, Tsuneo discloses a water fountain roller 2 that receives water from a source of such water, indicated at 1. This first roller 2 is driven by a first drive motor 10 that has its own controller 10′. A water transfer roller 3 receives water from the first roller 2. The second roller 3 is driven by its own drive motor 11 that is provided with a separate controller 11′. The water supplied to the second roller 3 is transferred to a water applying roller 4, which, as seen in the sole drawing figure, supplies the water to a plate or

forme cylinder 8.

b) Discussion of Examiner's Characterization of Disclosure of Primary Reference to Tsuneo JP 07-232045

The Examiner's characterization of the structure and function of the Tsuneo reference is set forth at pages 2 and 3 of the Detailed Action portion of the Final Office Action of January 28, 2008. The Examiner's conclusion, at page 3 of the Detailed Action, that "Tsueno does teach that the plate cylinder has its own speed of rotation which is independent from rollers 2 and 3..." (emphasis added) is not supported by any teaching or suggestion in the reference.

Tsuneo recites, in the abstract, that "The speeds of all of a water fountain roller 2, a water transfer roller 3 and a foreign matter roller 6... are independently controlled..." There is no discussion of the drive for the plate or forme cylinder 8. It can be assumed that forme cylinder 8 has a drive source of some type. Such a drive source could be a motor. It could also be a frictional engagement or a gear drive engagement with a transfer cylinder or with a counter-pressure cylinder, as is well known in the art.

The Abstract of the Tsuneo reference recites that "...regardless of the speed change of a plate cylinder 8, water can be continuously supplied to the plate cylinder as a definite water film through a water applying roller 4 and printing quality can be enhanced." (Emphasis added.) It is again noted that the Examiner's conclusion regarding the speed of rotation of the plate cylinder being independent of rollers 2 and 3 is not supported by any teaching in the document. The absence of any discussion of a specific type of drive for the plate or forme cylinder 8 and the absence of any discussion regarding a specific control for whatever drive is provided for the plate or forme cylinder 8 makes it impossible, from the discussion set forth in the Abstract and the depiction of the sole drawing, to conclude that the plate cylinder 8 of Tsuneo has its own

speed of rotation which is independent from rollers 2 and 3.

It is to be noted that Tsuneo recites the provision of a definite water film to the plate cylinder 8 so that printing quality can be enhanced. There is no discussion in the Abstract of the Tsuneo document as to what is meant by a definite water film. Is such a film one that has a specific thickness on the plate cylinder, or a specific volume of flow to the plate cylinder? Tsuneo does not provide any definition of the term "definite" other than it being such that "...printing quality can be enhanced." Tsuneo does recite that the provision of this definite water film is continuously supplied to the plate cylinder 8 regardless of a speed change of the plate cylinder.

The Examiner's admissions of the failings of the teachings of the Tsuneo reference, starting at the bottom of page 3 of the Detailed Action, and concluding at the bottom of page 4 of the Detailed Action, are not challenged. The selection of the speed of rotation of the first roller at less than 2 m/s is set forth in the Substitute Specification, as discussed previously.

c) Discussion of Disclosure of Secondary Reference U.S. Patent No. 3,688,694 To Preuss.

The secondary Preuss reference is directed to a dampening device for a printing press. As may be seen in Fig. 1, a dampening fluid, such as water, is provided in a pan or basin 4. A fountain roll 5 dips into the pan or basin 4 and transfers the water or dampening agent to an intermediate roll 6. Fountain roll 5 is the equivalent of the first roller 04 of the subject invention and intermediate roll 6 is the equivalent of the second roller 06 of the subject invention. The several intermediate rolls 7 and 1 are equivalent to the intermediate rolls 11, 13, 14 and 17 shown in Figs. 1 and 2 of the subject invention and therefore are not relevant to the discussion of the patentability of the subject invention. The water or other dampening agent is supplied to the surface of the plate or forme cylinder 3 via the dampening roller 1.

The Preuss patent issued in 1972. At that time, it was quite conventional to provide one main drive motor for an entire press assembly and to then control the speeds of various ones of the press components through the use of gear trains and transmissions. The Preuss device describes several different embodiments of drives for the relevant press components. While the Tsuneo reference describes the provision of independently controllable motors for the first and second rollers, it does not describe, or suggest any drive source or control for the forme cylinder, despite the Examiner's assertion. Accordingly, it is believed to be necessary to understand the teachings of the secondary Preuss reference with respect to the relationships between the drives and speeds of rotation of the first roller 5, the second roller 6 and the plate or forme cylinder 3. Four separate embodiments are described and depicted. Each will be discussed briefly.

As may be seen in Fig. 1, the plate or forme cylinder 3 carries a plate cylinder gear 29. As seen in each of Figs. 2, 4 and 5, the plate cylinder gear 29 engages an intermediate gear 28 which, in all four embodiments, engages a transfer roll drive gear 30. This portion of the drive train is the same for all four embodiments.

In a first embodiment depicted in Fig. 2, the transfer roll drive gear 30 drives a first variable transmission 33. That first variable transmission, through a drive belt or the like 35, drives a second variable transmission 36. The second variable transmission 36 drives both the first roller 5 and the second roller 6. Note the discussion at Column 5, lines 19-35 of the Preuss reference. The relevant portion of this structure is that the first roller 5 and the second roller 6 have a common drive source, the second variable transmission 36. The speeds of rotation of these two rollers are dependent on the gearing of the second variable transmission 36, which "... is preferably maintained constant after the optimal setting thereof has been determined." See Column 5, lines 39-41. Further settings are accomplished by adjusting the first variable

transmission 33 which is dependent on the speed of rotation of the plate cylinder gear 29.

In the second embodiment, which is depicted in Fig. 3, the first variable transmission 33 is eliminated in favor of a speed variable motor 38. However, "... the positive coupling between fountain roll 5 and intermediate roll 6 by gearings 36 is retained." This is set forth at Column 5, lines 47 and 48 of Preuss.

A third drive configuration is shown in Fig. 4 of Preuss. In this arrangement, the second roller 6 is driven by a gear 40 that is in engagement with a gear 31 on the transfer roll 7. The result is that the rolls 1, 7 and 6, which is the second roller in accordance with the present invention, all "... rotate with the same circumferential speed as plate cylinder 3." Please refer to Column 5, lines 54 and 55. It is to be kept in mind that in this embodiment, the first roller 5 is driven by the first variable transmission 33 which is ultimately driven by the plate cylinder gears 29. Again, the drive of at least one of the first and second rollers 5 and 6 is a direct function of the drive of the plate cylinder 1.

In the fourth embodiment, which is depicted in Fig. 5 of Preuss, the first roller 5 is driven by a separate motor 42 through a gearing 43 with a variable gear rotor 43. However, the second roller 6 is again driven in a fixed gear relationship with the plate cylinder gear 29.

d) Discussion of Examiner's Characterization of Disclosure of Preuss Reference

The Examiner initially states that Preuss discloses a dampening device with a roller train with a first roller and a second roller and a plate cylinder driven separately from the first and second rollers. A citation is made to Column 6, lines 2-3. That citation is not accurate. More importantly, in the first, third and fourth embodiment of Preuss, the drive of at least the second roller 6 is dependent on the drive of the plate cylinder 3. In the first two embodiments of Figs. 1 and 2, the drives of the first roller 5 and of the second roller 6 are positively coupled by the second variable transmission 36. The Examiner's characterization of this aspect of the Preuss

reference is thus believed to be inaccurate.

Preuss is asserted, in the Final Office Action, at page 5 of the Detailed Action, as teaching the rotating of the second roller at a higher speed than that of the first roller to create a slippage and to more accurately control the flow of dampening fluid, relying on Column 2, lines 10-19 of the secondary reference. A careful reading of this passage teaches that when the intermediate or second roll 6 has a speed higher than that of the fountain roll or first roll 5, a total slippage can be divided into two separate slippage factors. One slippage factor exists between the fountain roll 5 and the intermediate roll 6. The second exists between the intermediate roll 6 and the transfer roll 7. "The flow of dampening fluid by changing the total slippage can now be very accurately effected due to the division of the total slippage into two slippage factors as such division simultaneously causes a reduction of the total slippage." Please refer to the discussion at Column 2, lines 14-19 of Preuss.

Why would Preuss want to cause a reduction of the total slippage? The answer is found at Column 1, lines 60-67. It is there stated that the extent of the slippage is to be reduced. Such a reduction and accurate regulation of the slippage greatly improves the uniformity of flow of dampening fluid in accordance with the teachings of the Preuss reference.

It should be kept in mind that Preuss has two objectives. The first is to reduce slippage between the fountain roller 5 and the transfer roller 7. The second is to provide uniformity of flow of the dampening fluid. Both are different from the objects of the present invention, as recited in claim 102.

Preuss is asserted, in the final Office Action, as teaching the control of the slippage by regulating the speed differential between the first and second rollers, relying on Column 2, lines 23-26. A reading of that entire paragraph, not just a portion of it, teaches that the differential between the speed of the fountain roller 5 and the intermediate roller 6 is adjustable.

This is for the purpose of division of the total slippage into the slippage factor between the transfer roll 7 and the intermediate roll 6 and between the intermediate roll 6 and the fountain roll 5. Such a division of slippage can be selected in accordance with the specific requirements of the printing job to be performed. It is important to note at this junction that Preuss initially teaches the reduction and accurate regulation of slippage to improve the uniformity of flow of the dampening fluid. Preuss then also teaches that the division of such a slippage between two pairs of rollers can be selected in accordance with the printing job to be performed.

Preuss is then cited and relied on by the Examiner for teaching the changing of the dampening fluid supply by the slippage regulation in response to the speed of the forme cylinder. Again, this assertion is not entirely accurate. The discussion at Column 2, lines 40-47 of Preuss, which is cited by the Examiner for support for his assertion, actually states that an independent drive can be provided for the fountain roll 5, to present an increased supply of dampening fluid when the press is started, or (emphasis added) for a reduced flow of dampening fluid at high speeds of the press. This is disclosed as being beneficial because evaporation of the dampening fluid, at high speeds of the press, is recited as being less than at low speeds of the press.

The method of Preuss is recited in the final Office Action as resulting in greatly improved uniformity of the flow of dampening fluid. Again, a careful reading of the entire sentence set forth at Column 2, lines 63-68, makes it clear that it is both the reduction and the accurate regulation of the slippage that improves the uniformity of the flow of dampening agent. Reduction of slippage is as important, in the Preuss disclosure, as is the regulation of slippage. The division of the slippage between the three rollers 5, 6 and 7 is, as discussed at Column 7, lines 26-31 of Preuss, selected in accordance with the specific requirements of the printing job to be performed.

e) The Rejection of Claim 102 Under 35 USC 103(a) is Not Supported by the Tsuneo and Preuss References

Starting at the bottom of page 5 of the Detailed Action, the asserted combination of Tsuneo and Preuss is set forth. In Tsuneo, it was admitted that there is no teaching of selecting the second roller surface speed greater than the first roller surface speed. See the top line at page 4 of the Detailed Action. Further, Tsuneo discloses the supply of water to the plate cylinder at a definite water film, which term is not defined, regardless of the speed change of the plate cylinder. The Preuss reference discloses the accurate regulation of slippage between the rollers and the reduction of that slippage to improve the uniformity of the flow of dampening fluid. Is the attainment of a uniformity of dampening fluid, as taught by Preuss, the same as the attainment of a continuous supply of a definite water film, as taught by Tsuneo? If it is, then Preuss teaches that the way to best attain such a result is to reduce the slippage between the rollers.

Preuss recites that it attains its object, which is to accurately regulate and to reduce the slippage between the rollers, by positively driving the intermediate or second roller 6 with a circumferential speed different from that of the fountain roller. It is to be noted that "different from" is not the same as "greater than." In the case in Preuss where the second roller has a higher speed than the first roller, this is done to divide the total slippage into two slippage components (Column 2, lines 10-15). The division of the slippage into the two slippage factors causes a reduction in the total slippage. This reduction in that total slippage is the object of the Preuss invention because it greatly improves the uniformity of the flow of dampening fluid (Column 1, lines 65-67).

In Preuss, the provision of an independent drive programming for the fountain roller 5 is recited as being beneficial. This is because it "...presents programming for an increased supply of dampening fluid when the press is started or for a reduced flow at high speeds of the

press as evaporation is then relatively lower." (Column 2, lines 40-45.) This is not the same as the Examiner's assertion, in the conclusion at the bottom of page 6 of the Detailed Action, that it would be obvious to set the surface speed of the first and second rollers lower than the surface speed of the forme cylinder in order to provide less dampening solution to the forme cylinder when less is required by the printing process.

There are two errors in this conclusion. The first is that Preuss specifically recites, at Column 5, lines 52-54, that the rollers 1, 6 and 7 rotate with the same circumferential speed as the plate cylinder 3. This conclusion is reinforced by the statement at Column 3, lines 50-53. Roller 6 is the equivalent of the second roller recited in claim 102 and discussed in the conclusion at the bottom of page 6 of the Detailed Action. The statement that Preuss teaches the setting of the surface speeds of the first and second rollers lower than the surface speed of the forme cylinder is contrary to the plain language of Preuss.

The second error in the Examiner's conclusion, as set forth at the top of page 7 of the Detailed Action, is that this non-existent speed differential between both of the first and second rollers and the forme cylinder is done in order to provide less dampening fluid to the forme cylinder when less is required by the printing process. In fact, Preuss specifically states that an increased supply of dampening fluid is used when the press is started and that a reduced supply is required "...at high speeds of the press as evaporation is then relatively low" (emphasis added). The supply of dampening fluid supplied by the Preuss invention is greater when the press is started. This is not necessarily a speed-related function but could be equally necessary if the various rollers were all dry; i.e. had no dampening fluid because the press had not been in operation for a sufficient period of time so that the previously supplied dampening fluid had evaporated. Once the press is operating at its normal, high speed, the evaporation rate of the dampening fluid is now less because all of the components have been wetted. The supply of dampening fluid can now be reduced. Again, the statement that the first and second rollers

need less speed (than the forme cylinder) at higher press speeds is incorrect because Preuss explicitly recites that the second roller rotates at the same speed as the forme or plate cylinder. The Examiner's assertion, at the bottom of page 6 of the Detailed Action, and continuing at the top of page 7, is factually incorrect with regard to cylinder speeds and is mere conjecture with respect to the reasons for the provision of less dampening fluid to the forme cylinder "...when less is required by the printing process." Preuss only teaches that a reduced flow of dampening fluid is provided at high speeds of the press "...as evaporation is then relatively low." There is no correlation between forme cylinder speed, first roller speed and second roller speed, as recited in claim 102, in the Preuss reference. The combination of Tsuneo and Preuss relied on in the rejection of claim 102 does not, in fact, render that claim obvious.

2. Claims 104, 106, 107, 108, 109-112 and 116-127 are unpatentable under 35 USC 103(a) over Tsuneo in view of Preuss and others.

For the purposes of this appeal, the dependent claims will stand and fall with the sole independent claim 102. While each of these dependent claims recites additional features of the method for controlling rollers in a dampening agent application roller train of a printing unit, their individual patentability will not be argued at this time.

3. Reply to Examiner's Response to Arguments

a) Point 7

At point 7, at the top of page 14 of the Detailed Action, it is recited that the argument that Preuss does not provide two separate drive motors for the first and second rollers is moot. This is because Preuss is asserted as being relied on for teaching the controlling of the supply of dampening agent by controlling slippage between the two rollers, which is controlled by varying

their respective surface speeds.

The Preuss reference is the secondary reference and is used to supplement the teachings of the primary Tsuneo reference. It is to be recalled that Tsuneo shows separately controlled motors 10 and 11 for its first and second rollers 2 and 3. Tsuneo teaches the control of these motors so that "...regardless of the speed change of a plate cylinder 8, water can be continuously supplied to the plate cylinder 8 as a definite water film..." Applicant does not contest that teaching of Tsuneo. What was noted in the Third Amendment of October 26, 2007 was that Tsuneo does not recite a relationship between roller speeds and plate cylinder speed and appears to recite that a definite water film can be supplied regardless of a speed change of the plate cylinder. Preuss does not teach the control of the supply of dampening fluid by controlling slippage between the two rollers by varying their respective surface speeds. In the four embodiments of Preuss, the speed of the second roller is the same as that of the plate cylinder. In Figs. 2 and 3 of Preuss, the second roller 6 is driven from the first roller 5 by a variable transmission 36. "The gear ratio of gearing 36 is preferably maintained constant after the optional setting thereof has been determined." See Preuss, Column 5, lines 39-41.

b) Point 9

It is not contested that a challenge on the base of hindsight is not appropriate where all of the knowledge used is located in the teachings of the two references, or is obvious to one of skill in the art. However, when the conclusion drawn from the asserted knowledge is contradictory to that knowledge, such a challenge, based on hindsight, is believed to be appropriate. As has been discussed above, and as will again be reiterated below, the conclusions set forth in the Final Office Action of January 28, 2008 do not find support in the teachings of the two references.

c) Point 10

The conclusions set forth at the bottom of page 14 and at page 15 of the Detailed Action are based on an inaccurate interpretation of the Preuss reference. While these points have been discussed above, their incorrect combination needs to again be pointed out.

Preuss does not teach "...changing the dampening fluid supply depending on the needs (that is, the forme cylinder surface speed) of the press...", relying on Column 2, lines 41-46. The intent of Preuss is to regulate and to reduce the slippage between the fountain roll 5 and the transfer roll 7. This is done by controlling slippage components between the fountain roll 5 and the intermediate roll 6 and also between the intermediate roll 6 and the transfer roll 7. The purpose of this control is to reduce the slippage to thereby improve the uniformity of the flow of dampening fluid, Column 1, lines 65-67.

Preuss discloses the need for more dampening fluid at press start-up, and reduced supply at press "...high speeds," Column 2, lines 40-45. There is no teaching or suggestion of setting a selected slippage between the first roller surface and the second roller surface as a function of the forme cylinder surface speed, as recited in currently amended claim 102, in the Preuss reference. Preuss merely recites an increased supply of dampening fluid, when the press is started, or a reduced supply at high speeds of the press as evaporation is then relatively low, (emphasis added). This is not a teaching of setting roller slippage as a function of forme cylinder surface speed or of controlling the amount of dampening fluid supplied by controlling the slippage between the first and second rollers as a function of the forme cylinder surface speed.

Preuss does not "...further teach controlling the dampening fluid supply by controlling the slippage between the first and second rollers," as is alleged to be recited at Column 2, lines 15-19. Preuss teaches the division of slippage into two slippage components, one between

rollers 5 and 6 and the other between rollers 6 and 7. The flow of dampening fluid can be very accurately effected by changing the total slippage, as is recited at Column 2, lines 15-19. This is done because the "...reduction and accurate regulation of the slippage greatly improves the uniformity of the flow of dampening fluid" as set forth at Column 1, lines 65-67. A uniform flow of dampening fluid, by control and regulation of slippage is not the same as a control of an amount of dampening agent supplied by controlling the slippage between the first and second rollers as a function of the forme cylinder surface speed. Improvement in the uniformity of flow is not equivalent to controlling an amount of dampening agent supplied (emphasis added). Supplying more dampening fluid at press start-up and supplying less dampening fluid at high speeds "...as evaporation is then relatively lower..." is also not the same as controlling an amount of dampening agent supplied to the forme cylinder by controlling the slippage between the first and second rollers as a function of the forme cylinder surface speed. At best, Preuss teaches the provision of an increased supply of dampening fluid when the press is started or a "reduced" supply at press high speeds. A reduced supply at press high speeds (emphasis added) does not teach, or suggest controlling an amount of dampening agent supplied as a function of forme cylinder surface speed.

The flow chart set forth at page 15 of the Final Office Action is evidence of the basing of the interpolation of the Preuss reference on the desired result. Preuss teaches that when the drive for the fountain roll 5; i.e. the first roller, is derived from the main drive for the press, the condition for controlling the speed of the fountain roller, in accordance with the specific requirements of the printing job to be performed are limited. This is avoided by the provision of an independent drive for the fountain roll 5. As discussed above, this permits the increased supply of dampening fluid when the press is started and "...a reduced supply..." at press high speeds when evaporation of the fluid is then relatively low. This does not constitute a controlling of the amount of dampening agent supplied to the forme cylinder by controlling slippage as a

function of the forme cylinder surface speed. It does teach that when the press is being started, and the cylinders may be dry, that an increased amount of dampening fluid is needed. A reduced supply of fluid is supplied to the press at high speeds. There is no teaching or suggestion in Preuss that this reduced supply of fluid is a static amount or whether it varies. All that can be taken from Preuss is that more fluid is required at press start-up then is required at high speeds of the press because evaporation is then lower.

The printing job needs for dampening fluid are not, contrary to the flow chart at page 15 of the Final Office Action, dependent on the speed of the forme cylinder. The speed of the forme cylinder is a function of the type of production, the amount of production and the time allotted to do it. The forme cylinder speed is also a function of the type of ink, the type of dampening fluid, the number of ink colors and other factors, as discussed in the Substitute Specification of the subject application, specifically at ¶s 019, 020, 021 and 022. The speed of the forme cylinder of Preuss is discussed only in terms of press start-up and at high speeds. The first is recited as requiring an increased supply of fluid. The second is recited as requiring a reduced supply.

The slippage in the roller train in Preuss is divided into components. The reduction and the accurate regulation of the slippage is to improve the uniformity (emphasis added) of the flow of the dampening agent. An increased uniform flow is provided at press start-up, in accordance with the teachings of Preuss. A reduced uniform supply is provided at high speeds of the press, again in accordance with Preuss. There is not a control of the amount of dampening fluid supplied to the forme cylinder by controlling the selected slippage between the first and second rollers, which selected slippage is a function of the forme cylinder surface speed.

The rejection of claim 102, and of the claims that depend from it, in the Final Office Action of January 28, 2008 is not supported by the teachings and disclosures of the references cited and relied on. It is respectfully requested that this rejection be reversed.

viii CLAIMS APPENDIX (37 C.F.R. § 41.37(c)(1)(viii))

A copy of each of the claims whose final rejections are being appealed is submitted. This appendix does not include claims previously cancelled or withdrawn from consideration.

102. (Currently Amended) A method for controlling rollers in a dampening agent application roller train of a printing unit including:

providing a source of a dampening agent;

providing a first roller having a first roller surface adapted for taking up a dampening agent from said source of dampening agent;

providing a second roller having a second roller surface contacting said first roller surface and receiving said dampening agent directly from said first roller surface;

providing a forme cylinder having a forme cylinder surface speed of rotation;

providing a forme cylinder drive motor;

using said forme cylinder drive motor and rotating said forme cylinder at said forme cylinder surface speed of rotation;

including said first and said second rollers in a roller train usable for conveying said dampening agent to said forme cylinder;

providing a first roller drive motor for driving said first roller;

rotating said first roller at a first roller surface speed using said first roller drive motor;

providing said first roller surface speed at less than 2 m/s;

providing a second roller drive motor for driving said second roller at a second roller surface speed independently of said first roller;

controlling each of said first roller drive motor, said second roller drive motor and said forme cylinder drive motor independently of each other;

rotating said second roller at said second roller surface speed, different from said first roller surface speed using said second roller drive motor;

selecting said second roller surface speed being greater than said first roller surface speed;

selecting both said first roller surface speed and said second roller surface speed being less than said forme cylinder surface speed of rotation;

setting both of said first roller surface speed and said second roller surface speed as a function of said forme cylinder surface speed;

selecting a slippage between said first roller surface and said second roller surface by said controlling of each of said first roller drive motor and said second roller drive motor independently, said selected slippage resulting from said difference between said first roller surface speed and said second roller surface speed;

controlling said selected slippage between said first roller surface and said second roller surface, using said first and second drive motors;

setting said selected slippage between said first roller surface and said second roller surface as a function of said forme cylinder surface speed; and

controlling an amount of said dampening agent supplied to said forme cylinder using said roller train by controlling said selected slippage between said first roller surface and said second roller surface as said function of said forme cylinder surface speed.

103. (Cancelled)

104. (Previously Presented) The method of claim 102 further including selecting an ink for use in printing by said forme cylinder, forming a mixture of said ink and said dampening agent,

wherein a property of said ink includes an amount of said dampening agent mixed with it and setting said one of said surface speed of at least one of said first and second rollers and said slippage between said first and second rollers as a function of said property of said ink.

105. (Cancelled)

106. (Previously Presented) The method of claim 102 further including selecting an amount of ink required for printing using said forme cylinder and setting said one of said surface speed of at least one of said first and second rollers and said slippage between said first and second rollers as a function of said amount of ink required.

107. (Previously Presented) The method of claim 102 further including providing a dampening unit having said dampening agent source and said roller train and operating said dampening unit selectively in one of a first operating state and a second operating state wherein in said first operating state, said surface speed of said forme cylinder and said surface speed of said second roller are in a first relation with each other and wherein in said second operating state said surface speed of said forme cylinder and said surface speed of said second roller are in a second relation with each other, said first relation and said second relation being different.

108. (Cancelled)

109. (Previously Presented) The method of claim 102 further including operating said second roller as a traversing roller.

110. (Previously Presented) The method of claim 102 further including providing said first and

second drive motors being infinitely variably controlled.

111. (Previously Presented) The method of claim 102 further including providing said first and second drive motors being electronically controlled.

112. (Previously Presented) The method of claim 102 further including providing a control console and controlling said first and second drive motors from said control console.

113-115. (Cancelled)

116. (Previously Presented) The method of claim 102 further including providing a third roller in said roller train, locating said third roller after, in a direction of travel of said dampening agent, said second roller and providing a drive between said second roller and said third roller.

117. (Previously Presented) The method of claim 116 further including providing said drive as a gear drive.

118. (Previously Presented) The method of claim 116 further including providing said drive as a friction drive.

119. (Previously Presented) The method of claim 116 further including providing a fourth roller in said roller train and locating said fourth roller after said third roller in said direction of travel of said dampening agent.

120. (Previously Presented) The method of claim 119 further including setting a slippage between at least one of said second roller and said third roller and said third roller and said fourth roller.

121. (Previously Presented) The method of claim 102 further including bringing a last roller in said roller train into contact with said forme cylinder by contacting one of a bridge roller and an ink application roller working with said forme cylinder.

122. (Previously Presented) The method of claim 102 further including providing a dampening agent reservoir as said dampening agent source and dipping said first roller into said dampening agent reservoir.

123. (Previously Presented) The method of claim 102 further including applying said dampening agent to said first roller as finely distributed droplets.

124. (Previously Presented) The method of claim 102 further including providing a computer and changing one of said surface speed of one of said first and said second roller and said slippage between said first and second roller using said computer.

125. (Previously Presented) The method of claim 107 further including selecting a forme cylinder surface speed being the same in both of said first and second operating states.

126. (Previously Presented) The method of claim 107 further including selecting a first forme cylinder surface speed in said first operating state and a second forme cylinder surface speed, different from said first forme cylinder surface speed in said second operating state.

127. (Previously Presented) The method of claim 107 further including providing at least one third roller arranged in said roller train downstream, in a direction of travel of said dampening agent and using said third roller for applying said dampening agent to said forme cylinder.

Claims 128-191 (Cancelled)

ix EVIDENCE APPENDIX

None

x RELATED PROCEEDINGS APPENDIX

None

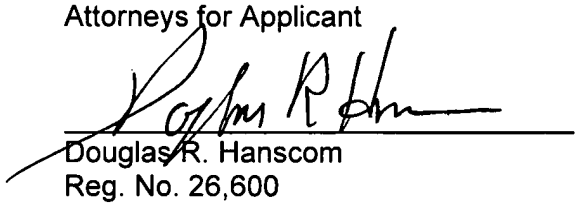
SUMMARY

The Final Rejection of claims 102, 104, 106, 107, 109-112 and 116-127 is appealed. This Appellant's Brief is believed to present support for the reversal of the final rejection of these claims. Allowance of the claims and passage of the application to issue is respectfully requested.

Respectfully submitted,

Claus August BOLZA-SCHÜNEMANN
Applicant

JONES, TULLAR & COOPER, P.C.
Attorneys for Applicant



Douglas R. Hanscom
Reg. No. 26,600

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JONES, TULLAR & COOPER, P.C.
P.O. Box 2266 Eads Station
Arlington, Virginia 22202
(703) 415-1500
Attorney Docket: W1.2041 PCT-US